GeoEngineering, Inc.
Consultants in Groundwater Control

100 Ford Rd. Denville, N.J. 07834 (201) 625 0700

June 1, 1987

Ed,
I don't like to have
of this letter - Does it
have a point or are
they basically in the
right?
Dennis

NJDEP
Hazardous Site Mitigation Administration
401 E. State Street
CN-028, 5th Floor
Trenton, NJ 08625

ATTN: Edgar Kaup

SUBJ: L.E. Carpenter, Wharton, New Jersey
R.I. Work Plan

Dear Ed,

The enclosures are the text revisions for the Carpenter Work Plan which result from our meeting here on May 21. I trust you will find them in agreement with the decisions we made at the meeting. If you have any concerns, please do not hesitate to call Bill Dunnell or me.

You will note that the revisions and amplifications regarding test pit excavations and the two-inch observation wells are not as extensive as Linda Welkom requested. We have expanded the text where appropriate in order to confirm that sampling procedures and well construction details will be in accordance with the published NJDEP regulations or guidelines.

With respect to exploratory test pits, I trust you can appreciate the futility of dictating in advance the dimensional details of each excavation (width, length, sideslopes, etc.). To do so would forfeit the flexibility of this exploratory technique, which is a principal reason we propose it in the first place. Additionally, we have warned that the alternative of shallow test borings would substantially increase the cost, extend the schedule, and diminish the amount of subsurface information gathered.

With regard to the two-inch wells, we have modified the text to show that the proposed construction is consistent with NJDEP regulations, as cited. Linda's opinion that four-inch rather than two-inch diameter is required in order to assure a straight well is simply contrary to the experience and practice of geotechnical engineers and drilling contractors throughout the state, and indeed throughout the country, with installations to depths many times greater than anticipated at the Wharton site. Here again, the escalation of cost and extension of schedule implicit in the four-inch requirement are simply punitive; no improvement in technical information will be produced.

The use of exploratory test pits and two-inch diameter wells as we propose, including the enclosed revisions, are technically sound and consistent with generally accepted practice in the geotechnical engineering profession and throughout the exploratory drilling industry. Additionally, we have undertaken to demonstrate that they are consistent with NJDEP guidelines and recommendations and, therefore, I hope that you will be able to secure approval for these items.

I acknowledge my responsibility, as a Professional Engineer, to make recommendations to my client that are technically correct and appropriate, but to recommend against changes in those recommendations which either increase cost or extend schedule without corresponding improvement in technical result. Accordingly, if NJDEP will not approve the procedures we recommend in these two instances, I respectfully request that you provide the technical basis of the rejection in some detail, so that my client can understand that the decision is not arbitrary or ill-founded and can thereby make a decision as to whether to pursue this issue.

Please call at your convenience if further discussion of this matter would be useful.

Sincerely,

GEOENGINEERING, INC.

William H. McTigue
President

WHM/avm
cc F. Aron
S. Singer
T. Kaylor

Section 3.2, Field Investigation

Paragraph 2

-Insert in place of "Following the literature review...to better define the areas of interest."

"Concurrent with the site history and literature review, a soil gas survey will be conducted to serve as a reconnaissance method for delineating subsequent more detailed investigation. In addition, characterization of wastes stored on-site will be undertaken. This will involve the sampling of all containers storing waste products generated during manufacturing processes. This will serve to confirm and define additional subsequent analysis parameters for soil and groundwater quality testing. An interim report will be..."

Section 3.2, Field Investigation

Paragraph 3, 2nd sentence

"Soil sampling will be conducted for nonvolatile organic substances in the sludge impoundment area, the area surrounding MW-1, the ink solvent tanks and the former..."

Section 5.3.1 Field Investigation

-Insert between Paragraph 5 & 6

"Soil samples will be collected from three test pits around the buried ink/solvent waste tanks in Area III. Analysis parameters will include MEK, metals and priority pollutant volatiles. However, if the waste characterization shows other constituents not detectable in the proposed soil analysis, the appropriate parameters will be added to the testing."

Construction of 2" Deep Overburden Wells

-To be inserted in Section 5.3.3, 4th paragraph (if approved), prior to and replacing: "Construction of the monitor wells...are presented in Figure 4."

Drilling will be by the wash casing technique utilizing a roller bit and drilling mud. HW size (4" I.D.) flush-joint steel casing will be advanced behind the roller bit and sampling equipment to the bedrock surface. The casing will be seated securely in the bedrock and then thoroughly flushed before beginning the rock coring. When the coring is completed and the core hole grouted and allowed to set, the casing will again be flushed thoroughly and the well constructed. Construction of the 2" deep overburden wells will be the same as for the shallow monitor wells except that the screen will be at the bedrock surface. Well casing centralizers will be positioned in accordance with NJDEP Well Regulations (3/86); the casing advanced during

drilling, to be gradually removed during the construction of the well, will also serve to insure that the well is not skewed vertically due to collapsing formation. Removal of the casing and filter placement will be coordinated such that natural formation is never allowed to collapse around the well casing or screen. As a result, a uniform filter pack and seal will be constructed in the annular space between the natural formation and the well screen and casing. Deep well construction details are presented in Figure 4."

Development Procedures

-To be inserted in Section 5.3.3, 7th paragraph replacing the current paragraph.

"All wells will be developed by airlift, centrifugal or suction pumping methods for a minimum of one hour or until a clear discharge is produced.

The airlift method entails the placement of an air hose at the bottom of the well through which air is forced under high pressure thereby evacuating the standing water from the bottom up. This approach will not be used in wells with floating product.

The centrifugal method involves using a gas powered or electric pump at the surface with a hose lowered beneath the water surface. Assuming the drawdown due to pumping does not exceed the lift capacity of the pump, the hose could be positioned such that it always remains just below the water surface. This would insure that all water standing in the casing is evacuated.

The suction method utilizes a centrifugal pump, with its intake connected directly to the top of the well casing, which thus exhausts all air water standing in the well. This method precludes the possibility of cavitation in deep wells that might occur with the other approaches since no air is allowed into the well casing once the pumping has started. For wells screened across the water table, this method will be inappropriate. It may be used where the suction lift during pumping is less than 25 feet.

All water removed during the development activities will be containerized. It is expected, based on past tests, that the wells will yield 10 to 50 gpm with a drawdown ranging from 2 to 10 feet."

Section 6.3, Emergency Procedures

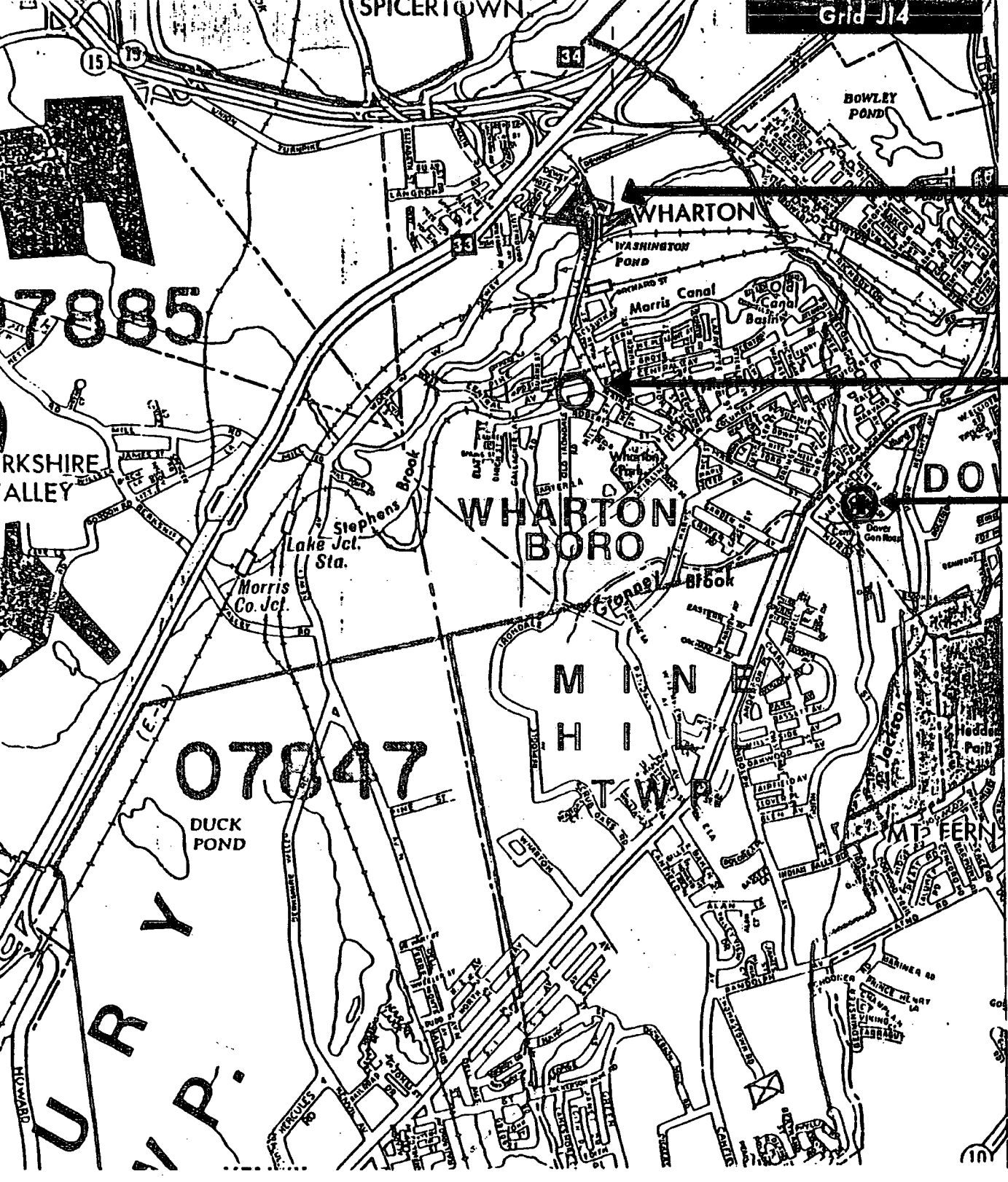
-Insert following "In addition, telephone numbers...involved in the investigation."

"Figure 5 is a map that will be available to all site personnel showing the locations of emergency facilities near the site."

Section 7.1, Items to be Decontaminated

-Insert before last paragraph

"An area on site will be selected as a decontaminated zone. A crushed stone bed underlain by an impermeable liner to contain and collect runoff of decontamination fluids will be constructed for all cleaning activities. Collected fluids will be containerized prior to disposal. All vehicles involved..."



L.E. Carpenter & Co.
GeoEngineering, Inc.

Figure 5
Emergency Facility Location Plan

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS WASTE MANAGEMENT
John J. Trela, Ph.D., Acting Director
401 East State St.
CN 028
Trenton, N.J. 08625
609 - 633 - 1408

MEMORANDUM

6/8/87

TO: Distribution List

THROUGH: D. Hart, Section Chief
Bureau of Case Management

FROM: E.G. Kaup PE, Case Manager

SUBJECT: L.E. Carpenter
Work Plan Modfications (6/3/87)

The attached document/information on the above named facility is for your:

[X] Review and comment

[ ] Information and/or file

[ ] Action

[ ] Other

Should you have any questions or if you are unable to meet the due date please contact me at 3-0701.

Due Date: 6/22/87

Activity Code: 7TJ (Site Investigation)

Distribution:

FYI Only

[ ] L. Welkom, Geologist, Division of Water Resources

[ ] W. Storm, Technical Coordinator, BEERA Division of Hazardous Site Mitigation

[ ] _____, Regulatory Officer, Office of Regulatory Services

[ ] _____, Bureau of Community Relations

[ ] _____, Division of Solid Waste

[ ] _____, Division of Environmental Quality

[ ] J. Feldstein, USEPA II Site Compliance Branch

[ ] _____

[ ] _____

c: Karen Jentis, Chief, Bureau of Case Management w/o attachments
Superfund Coordinator, DWR w/o attachments